

Petite Lake Road (Fairfield Road to IL Rte. 83) Reconstruction and Relocation; Design Engineering: Consultant Contract.

Accounts Payable (1) cert.  
Transportation (2) cert.

STATE OF ILLINOIS )

COUNTY OF LAKE )

COUNTY BOARD, LAKE COUNTY, ILLINOIS  
ADJOURNED REGULAR SEPTEMBER A.D. 2007 SESSION  
APRIL 08, A.D. 2008

MADAM CHAIR AND MEMBERS OF THE COUNTY BOARD:

Joint resolution authorizing the Chair of the County Board, the County Clerk and the County Engineer to execute an agreement between Lake County and Civiltech Engineering, Inc., Itasca, Illinois, for the provision of Design Engineering services for the proposed widening and reconstruction of Petite Lake Road (County Highway 51) from Fairfield Road (County Highway 49) to IL Rte. 83 and including its realignment at its intersection with Rte. 83 northerly of its present location at a maximum cost for services described not to exceed \$349,778. This resolution also appropriates \$420,000 of Matching Tax funds for these engineering services designated as Section 00-00181-03-RS.


We RECOMMEND adoption of this Resolution.

	Aye	Nay
<u>Donald Kelly</u>	✓	—
Chair		
<u>Mark</u>	✓	—
Vice-Chair		
<u>Ann B. Maye</u>	✓	—
<u>Teresa Dugan</u>	✓	—
_____	—	—
_____	—	—

Public Works and Transportation Committee

	Aye	Nay
<u>Donald Kelly</u>	x	—
Chair		
<u>Ann Flanagan</u>	✓	—
Vice-Chair		
<u>Donald Kelly</u>	✓	—
<u>William</u>	x	—
<u>Barbara</u>	✓	—
<u>Sharon O'Kelly</u>	✓	—

Financial and Administrative Committee

Municipality	LOCAL AGENCY	 <b>Illinois Department of Transportation</b>  <b>Preliminary Engineering Services Agreement For Motor Fuel Tax Funds</b>	CONSULTANT	Name Civiltech Engineering, Inc.
Township				Address 450 East Devon Avenue. Suite 300
County Lake County DOT				City Itasca
Section 00-00181-03-RS				State IL

THIS AGREEMENT is made and entered into this 8 day of April, 2008 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Motor Fuel Tax Funds, allotted to the LA by the State of Illinois under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely or in part to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

#### Section Description

Name Petite Lake Road Re-Alignment

Route \_\_\_\_\_ Length 1.6 Mi. 5,800 FT (Structure No. \_\_\_\_\_)

Termini Petite Lake Road from west of Fairfield Road to IL Route 83 and IL 83 from south of existing Petite Lake Road to north of new Petite Lake Road

#### Description:

See project description included in Exhibit A.

#### Agreement Provisions

##### The Engineer Agrees,

1. To perform or be responsible for the performance of the following engineering services for the LA, in connection with the proposed improvements herein before described, and checked below:
  - a. ☐ Make such detailed surveys as are necessary for the preparation of detailed roadway plans
  - b. ☐ Make stream and flood plain hydraulic surveys and gather high water data, and flood histories for the preparation of detailed bridge plans.
  - c. ☒ Make or cause to be made such soil surveys or subsurface investigations including borings and soil profiles and analyses thereof as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations are to be made in accordance with the current requirements of the DEPARTMENT.
  - d. ☒ Make or cause to be made such traffic studies and counts and special intersection studies as may be required to furnish sufficient data for the design of the proposed improvement.
  - e. ☐ Prepare Army Corps of Engineers Permit, Department of Natural Resources-Office of Water Resources Permit, Bridge waterway sketch, and/or Channel Change sketch, Utility plan and locations, and Railroad Crossing work agreements.
  - f. ☐ Prepare Preliminary Bridge design and Hydraulic Report, (including economic analysis of bridge or culvert types) and high water effects on roadway overflows and bridge approaches.
  - g. ☒ Make complete general and detailed plans, special provisions, proposals and estimates of cost and furnish the LA with five (5) copies of the plans, special provisions, proposals and estimates. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at his actual cost for reproduction.
  - h. ☐ Furnish the LA with survey and drafts in quadruplicate of all necessary right-of-way dedications, construction easement and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.

Note: Four copies to be submitted to the Regional Engineer

Printed 3/24/2008

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BLR 05510 (Rev. 11/06)

**DRAFT**

- i. ☒ Assist the LA in the tabulation and interpretation of the contractors' proposals
  - j. ☐ Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.
  - k. ☐ Prepare the Project Development Report when required by the DEPARTMENT.
- (2) That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies of the DEPARTMENT. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA and the DEPARTMENT.
- (3) To attend conferences at any reasonable time when requested to do so by representatives of the LA or the Department.
- (4) In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that he will perform such work without expense to the LA, even though final payment has been received by him. He shall give immediate attention to these changes so there will be a minimum delay to the Contractor.
- (5) That basic survey notes and sketches, charts, computations and other data prepared or obtained by the Engineer pursuant to this AGREEMENT will be made available, upon request, to the LA or the DEPARTMENT without cost and without restriction or limitations as to their use.
- (6) That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by him and will show his professional seal where such is required by law.

**The LA Agrees,**

- 1. To pay the ENGINEER as compensation for all services performed as stipulated in paragraphs 1a, 1g, 1i, 2, 3, 5 and 6 in accordance with one of the following methods indicated by a check mark:
  - a. ☐ A sum of money equal to \_\_\_\_\_ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.
  - b. ☒ The ENGINEER will submit monthly invoices to the County for approval and payment covering work completed during the previous period. 10% of each invoice amount will be withheld as retainage.
- 2. To pay for services stipulated in paragraphs 1b, 1c, 1d, 1e, 1f, 1h, 1j & 1k of the ENGINEER AGREES at actual cost of performing such work plus 175 percent to cover profit, overhead and readiness to serve - "actual cost" being defined as material cost plus payrolls, insurance, social security and retirement deductions. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at his actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided under the paragraph 1b, 1c, 1d, 1e, 1f, 1h, 1j & 1k. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER ~~plus a five (5) percent service charge.~~ The maximum "not-to-exceed fee for this work will be \$349,778.

"Cost to Engineer" to be verified by furnishing the LA and the DEPARTMENT copies of invoices from the party doing the work. The classifications of the employees used in the work should be consistent with the employee classifications for the services performed. If the personnel of the firm, including the Principal Engineer, perform routine services that should normally be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the work performed.

3. That payments due the ENGINEER for services rendered in accordance with this AGREEMENT will be made as soon as practicable after the services have been performed in accordance with the following schedule:
  - a. Upon completion of detailed plans, special provisions, proposals and estimate of cost - being the work required by paragraphs 1a through 1g under THE ENGINEER AGREES - to the satisfaction of the LA and their approval by the DEPARTMENT, 90 percent of the total fee due under this AGREEMENT based on the approved estimate of cost.
  - b. Upon award of the contract for the improvement by the LA and its approval by the DEPARTMENT, 100 percent of the total fee due under the AGREEMENT based on the awarded contract cost, less any amounts paid under "a" above.

By Mutual agreement, partial payments, not to exceed 90 percent of the amount earned, may be made from time to time as the work progresses.

4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in paragraphs 1a, through 1h and prior to the completion of such services, the LA shall reimburse the ENGINEER for his actual costs plus 175 percent incurred up to the time he is notified in writing of such abandonment - "actual cost" being defined as in paragraph 2 of THE LA AGREES.
5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of THE ENGINEER AGREES, after they have been approved by the DEPARTMENT, the LA will pay the ENGINEER for such changes on the basis of actual cost plus 175 percent to cover profit, overhead and readiness to serve - "actual cost" being defined as in paragraph 2 of THE LA AGREES. It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of his responsibility to prepare a complete and adequate set of plans and specifications.

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**It is Mutually Agreed,**

1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.
2. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at his last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with Section 4 of THE LA AGREES.
3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA and their approval by the DEPARTMENT, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA and the DEPARTMENT.
4. That the ENGINEER warrants that he/she has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that he/she has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.

IN WITNESS WHEREOF, the parties have caused the AGREEMENT to be executed in quadruplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

County of Lake of the  
(Municipality/Township/County)

ATTEST:

State of Illinois, acting by and through its

By

Clerk

By

(Seal)

Title Chairman of County Board

RECOMMEND FOR EXECUTION:

Director of Transportation/County Engineer Lake County

Executed by the ENGINEER:

ATTEST:

By

Title

*Michael J. H.*  
Vice President

By

Title

*John B.*  
President

Approved

Date

Department of Transportation

Regional Engineer

County Engineer

On behalf of IDOT pursuant to Agreement  
of Understanding dated January 22, 2003

Phase II Engineering Manhour Calculations  
Professional Engineering Services Proposal

Petite Lake Road Re-Alignment  
Lake County Division of Transportation

Task No.	Task	Personnel & Hours										Total Hours	% of Hours	Labor Cost
		DH	PM	PE	DE	TSE	SE	Design Tech	QC/QA					
1	Data Collection and Early Coordination	\$55.00	\$37.50	\$32.00	\$26.00	\$29.50	\$45.00	\$30.00	\$55.00			260	7.4%	\$ 8,560.50
2	Preliminary (65%) Engineering	17	59	52	60	2	2	68	0					
3	Pre-Final (90%) Plans, Special Provisions and Estimates	47	148	271	318	0	0	207	0			991	28.2%	\$ 31,285.00
4	Final (100%) Plans, Special Provisions and Estimates	63	176	362	432	207	24	262	16			1542	43.9%	\$ 48,807.50
5	Project Administration, Coordination and Permits	34	45	105	124	92	0	48	16			464	13.2%	\$ 15,175.50
	Total Cost	52	81	65	41	4	0	12	0			255	7.3%	\$ 9,521.50
	Multiplier*	2.75												\$ 113,350
	Direct Costs and Sub Consultant Expense (See attached calculation)													\$ 311,713
	*Multiplier											3512	100.0%	\$ 349,778
	1 (Direct Labor) + OH + 0.145*(1 + OH)													\$ 38,066
	IDOT Approved OH Rate = 153.86%													\$ 349,778

1 (Direct Labor) + OH + 0.145\*(1 + OH)  
IDOT Approved OH Rate = 153.86%

**Phase II Engineering Manhour Calculations  
Professional Engineering Services Proposal**

**Petite Lake Road Re-Alignment  
Lake County Division of Transportation**

Personnel & Hours											Total	% of Hours								
OH	PM	PE	DE	JSE	SE	Design Tech	QC/QA													
1 Data Collection and Early Coordination																				
a. Initial Meeting with County	3	3								6	2.3%									
b. Obtain/Update and Review Record Data		4	6	8	2	2				22	8.5%									
c. Preliminary Utility Company Coordination		2		6						8	3.1%									
d. Supplemental Survey (Coordination Only)	1	4	4							9	3.5%									
e. Geotechnical Investigation (Coordination Only)	1	2	2							5	1.9%									
f. Interim Intersection Design Studies	12	44	40	46			68			210	80.8%									
Sub-total Item 1											17	59	52	60	2	2	68	0	260	100.0%
2 Preliminary (65%) Engineering																				
a. Plan Base Sheet Preparation	2	6	20	24			24			76	7.7%									
b. Review and Confirm Project Right-of-Way Requirements	4	4	16	12						36	3.6%									
c. Pavement Design	1	3	6							10	1.0%									
d. Drainage Design	2	16	24	36						78	7.9%									
e. Preliminary Plans										0	0.0%									
Cover Sheet and Index of Sheets (1 sheet)			1	2			1			4	0.4%									
General Notes and List of State and Local Standards (1 sheet)		1	2	4			1			8	0.8%									
Typical Sections (2 sheets)		1	4	8			5			18	1.8%									
Roadway Plan and Profile 1"=20' (13 sheets)	12	40	72	72			56			252	25.4%									
Roadway Drainage and Utility 1"=20' (13 sheets)	12	40	72	72			48			244	24.6%									
Pavement Marking and Signing 1"=50' (6 sheets)	1	2	6	8			8			25	2.5%									
Cross Sections (25 sheets)	10	32	48	80			64			234	23.6%									
f. Preliminary Design Review Meeting	3	3								6	0.6%									
Sub-total Item 2											47	148	271	318	0	0	207	0	991	100.0%
3 Pre-Final (90%) Plans, Special Provisions and Estimates																				
a. Pre-Final Plans																				
Cover Sheet and Index of Sheets (1 sheet)			1	1			1			3	0.2%									
General Notes and List of State and Local Standards (1 sheet)		1	2	2			2			7	0.5%									
Summary of Quantities (6 sheets)		1	3	3			5			12	0.8%									
Typical Sections (2 sheets)		1	1	8			4			14	0.9%									
Alignment, Ties and Benchmarks (1 sheet) 1"=100'	1	2	8	8			6			25	1.6%									
Plan and Profile (18 sheets) 1"=20'	12	40	72	80			40			244	15.8%									
Drainage and Utility (18 sheets) 1"=20'	12	42	72	80			40			246	16.0%									
Maintenance of Traffic - 2 stages (6 sheets) 1"=50'	4	16	56	60			36			172	11.2%									
MOT General Notes and Typical Sections (1 sheet)		2	4	4			4			14	0.9%									
Intersection Grading Details (1 sheet) 1"=20'		2	8	8			12			30	1.9%									
Petite Lake Road Resurfacing Plan (1 sheet) 1"=50'	1	2	16	16			10			45	2.9%									
Pavement Marking and Signing (3 sheets) 1"=50'		2	4	8			8			22	1.4%									
Landscape Restoration and Erosion Control Plan (3 sheets) 1"=50'		2	12	20			16			50	3.2%									
Cross Sections - 50' interval/ driveways (24 sheets) 1"=10' H : 1"=5' V	8	42	48	72			56			226	14.7%									
Retaining Wall Plan and Elevation 1"=20' H : 1"=5' V (1 sheet)	1	4	8	16			24	12		65	4.2%									
Retaining Wall Details (2 sheets)			2	2				2		6	0.4%									
Permanent Signal Plan IL 83/New Petite Lake Road (1 sheet)					40					40	2.6%									
Permanent Cable Plan IL 83/New Petite Lake Road (1 sheet)					12					12	0.8%									
Seq. of Operations / Schedules IL 83/New Petite Lake Road (1 sheet)					4					4	0.3%									
Permanent Signal Plan IL 83/Ex. Petite Lake Road (1 sheet)					40					40	2.6%									
Permanent Cable Plan IL 83/Ex. Petite Lake Road (1 sheet)					12					12	0.8%									
Seq. of Operations / Schedules IL 83/Ex. Petite Lake Road (1 sheet)					4					4	0.3%									
Temporary Signal Plan IL 83/Ex. Petite Lake Road (1 sheet)					24					24	1.6%									
Temporary Cable Plan IL 83/Ex. Petite Lake Road (1 sheet)					12					12	0.8%									
Interconnect Plan IL 83 (1 sheet)					24					24	1.6%									
Interconnect Schematic IL 83 (1 sheet)					8					8	0.5%									
Traffic Signal Details (4 sheets)					2					2	0.1%									
Mast Arm Mounted Street Name Signs (1 sheet)					4					4	0.3%									
Construction Details (4 sheets)			4	4			8			16	1.0%									
b. Pre-Final Special Provisions and Bid Book	4	12	8	8	4					36	2.3%									
c. Pre-Final Quantity Calculations			32	32	16					80	5.2%									
d. Pre-Final Estimates of Cost and Construction Time	1	2	1		1					5	0.3%									
e. Pre-Final QC/QA Review	16							16		32	2.1%									
f. Pre-Final Project Review Meeting	3	3								6	0.4%									
Subtotal Item 3											63	176	362	432	207	24	262	16	1542	100.0%

Personnel & Hours										
	DH	PM	PE	DE	TSE	SE	Design Tech	QC/QA	Total	% of Hours
<b>4 Final (100%) Plans, Special Provisions and Estimates</b>										
a. Final Plans	16	42	76	96	80		48		358	77.2%
b. Final Special Provisions and Bid Book	1	2	4	4	3				14	3.0%
c. Final Quantity Calculations			24	24	8				56	12.1%
d. Final Estimates of Cost and Construction Time	1	1	1		1				4	0.9%
e. Final QC/QA Review	16							16	32	6.9%
<b>Sub-total Item 4</b>	<b>34</b>	<b>45</b>	<b>105</b>	<b>124</b>	<b>92</b>	<b>0</b>	<b>48</b>	<b>16</b>	<b>464</b>	<b>100.0%</b>
<b>5 Project Administration, Coordination and Permits</b>										
a. Project Administration	24	12	12	12					60	23.5%
b. Project Submittals		9	9	9					27	10.6%
c. Utility Company Coordination	2	16	20		4				42	16.5%
d. Lake County Stormwater Permitting and Documentation	8	12	16	16					52	20.4%
e. Wetland Permitting (Coordination Only)	2	8							10	3.9%
f. NPDES Permitting and Documentation		4	8	4					16	6.3%
g. Coordination with Appraisers and Negotiators	12	12					12		36	14.1%
h. Bidding Assistance and Pre-Construction Meeting Attendance	4	8							12	4.7%
<b>Sub-total Item 5</b>	<b>32</b>	<b>31</b>	<b>65</b>	<b>41</b>	<b>4</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>255</b>	<b>100.0%</b>
<b>Total Hours:</b>	<b>213</b>	<b>509</b>	<b>855</b>	<b>975</b>	<b>305</b>	<b>26</b>	<b>597</b>	<b>32</b>	<b>3512</b>	
<b>% of Hours:</b>	<b>6.1%</b>	<b>14.5%</b>	<b>24.3%</b>	<b>27.8%</b>	<b>8.7%</b>	<b>0.7%</b>	<b>17.0%</b>	<b>0.9%</b>	<b>100.0%</b>	



**Phase II Engineering Manhour Calculations  
Professional Engineering Services Proposal**

**Petite Lake Road Re-Alignment  
Lake County Division of Transportation**

DIRECT COSTS		
Item No.	Description	Cost
<b>Item 1</b>	<b>Printing</b>	
	<i><b>Preliminary Plans</b></i>	
	Village 2 sets X 67 sheets/set X \$0.60/sheet (24"x36")	\$ 80.40
	County 5 sets X 67 sheets/set X \$0.60/sheet (24"x36")	\$ 201.00
	County 3 sets X 67 sheets/set X \$0.15/sheet (11"x17")	\$ 30.15
	Utility Co. 15 sets X 67 sheets/set X \$0.60/sheet (24"x36")	\$ 603.00
	<i><b>Pre-Final Plans</b></i>	
	Township 2 sets X 108 sheets/set X \$0.60/sheet (24"x36")	\$ 129.60
	County 5 sets X 108 sheets/set X \$0.60/sheet (24"x36")	\$ 324.00
	County 3 sets X 108 sheets/set X \$0.15/sheet (11"x17")	\$ 48.60
	IDOT 5 sets X 108 sheets/set X \$0.60/sheet (24"x36")	\$ 324.00
	Utility Co. 15 sets X 108 sheets/set X \$0.60/sheet (24"x36")	\$ 972.00
	<i><b>Pre-Final Specification Books</b></i>	
	20 books X \$20/book	\$ 400.00
	<i><b>Final Plans</b></i>	
	Township 2 sets X 108 sheets/set X \$0.60/sheet (24"x36")	\$ 129.60
	County 5 sets X 108 sheets/set X \$0.60/sheet (24"x36")	\$ 324.00
	County 3 sets X 108 sheets/set X \$0.15/sheet (11"x17")	\$ 48.60
	IDOT 5 sets X 108 sheets/set X \$0.60/sheet (24"x36")	\$ 324.00
	Utility Co. 15 sets X 108 sheets/set X \$0.60/sheet (24"x36")	\$ 972.00
	Mylar Plots sets X 108 sheets/set X \$7.50/sheet	\$ 810.00
	Bid Plans 20 sets X 108 sheets X \$0.60/sheet	\$ 1,296.00
	<i><b>Final Specification Books</b></i>	
	30 books X \$20/book	\$ 600.00
<b>Total Item 1</b>		<b>\$ 7,616.95</b>
<b>Item 2</b>	<b>Shipping</b>	
	20 overnight shipping items X \$20/each	
<b>Total Item 2</b>		<b>\$ 400.00</b>
<b>Item 3</b>	<b>Vehicle Expense</b>	
	Mileage	
<b>Total Item 3</b>		<b>\$ 500.00</b>
<b>Item 4</b>	<b>Geotechnical Investigation</b>	
	Midland Standard Engineering & Testing, Inc.	\$ 16,402.00
<b>Total Item 4</b>		<b>\$ 16,402.00</b>
<b>Item 5</b>	<b>Wetlands</b>	
	Hey and Associates	\$ 13,147.00
<b>Total Item 5</b>		<b>\$ 13,147.00</b>
<b>TOTAL DIRECT EXPENSES:</b>		<b>\$ 38,065.95</b>

# ***Hey and Associates, Inc.***

Water Resources, Wetlands and Ecology

**CHICAGO AND GENEVA, ILLINOIS**

**26575 W. COMMERCE DRIVE, SUITE 601**

**VOLO, ILLINOIS 60073**

**PHONE (847) 740-0888**

**FAX (847) 740-2888**

**BROOKFIELD, WISCONSIN**

March 17, 2008

Mr. Reid Magner  
Civiltech Engineering, Inc.  
450 E. Devon Avenue, Suite 300  
Itasca, Illinois 60143

Proposal No.: P114-08-E/WR

Re: Wetland, Drain Tile Investigation, and Tree Inventory Consulting Services  
Petite Lake Road Project  
Lake Villa, Lake County, Illinois

Dear Mr. Magner:

As requested, we would be pleased to provide wetland consulting, subsurface drainage inventory, and tree inventory services for the referenced project. We propose the following scope of services:

## **WETLAND FIELD INVESTIGATION AND REPORT**

We will complete a field investigation of the project area and perform a wetland delineation applying the general procedures detailed in the 1987 U.S. Army Corps of Engineers' (Corps) wetland delineation manual. We will identify and flag the wetland boundaries for surveying by your surveyor. The flags will be numbered sequentially to assist the surveyor. Once completed, we will review a copy of your survey against our field notes.

We will utilize the information obtained to complete a full wetland delineation report. The report will be in accordance with Corps and Lake County requirements including an aerial photograph showing the surveyed wetland boundaries, required Corps dataforms for sample points, observed vegetative species lists, farmed wetland determination, and representative color photos. We will complete this task for a lump sum of \$2,250.

Please note that if the fieldwork for the wetland delineation occurs outside the normal growing season (May to October), the Corps or Lake County Stormwater Management Commission (LCSMC) may possibly require the collection of additional data during the growing season. Also, please note that our efforts to delineate wetland on the site will be compromised if snow cover is present. Supplemental data collection requiring additional fieldwork would need to be billed on a time and materials basis according to our standard rates.

## **REQUEST FOR JURISDICTIONAL DETERMINATION**

As you know, if wetlands or waters are found in the project area, they will fall under the regulatory authority of either the Corps or LCSMC. Therefore, we recommend submitting our report to the LCSMC requesting a jurisdictional determination and wetland boundary concurrence. If necessary, we will attend one field meeting. We are prepared to complete this task for a lump sum of \$400.

## **LISTED SPECIES CONSULTATION**

We will prepare and submit initial correspondence to the Illinois Department of Natural Resources (IDNR) and the U. S. Fish and Wildlife Service regarding the possible presence of threatened and endangered species in the project area. We will complete this task for a lump sum of \$300. This task does not include any follow-up studies that may be required by the agencies.

## **PERMIT CONSULTATION**

Any impacts to wetlands or waters on the property will require a permit from the Corps and/or from LCSMC. At this time, the level of permitting required is not known. However, after the jurisdictional determination is completed, we are prepared to provide wetland permitting consultation to assist you in the planning process. We can review proposed site plans and provide regulatory guidance regarding wetland permitting, required wetland buffers, and wetland mitigation as necessary. We are prepared to complete such tasks on a time and materials basis with an estimated initial total of \$750.

## **WETLAND PERMIT SUBMITTALS**

We will coordinate with you to prepare the appropriate permit applications and attend any required meetings. Our estimate of time and materials costs to prepare permit submittals are:

- LCSMC's Wetland Permit-Category III Application \$2,000
- Corps' Regional Permit 3 Transportation Project-Category II Application \$2,500

## **SUBSURFACE DRAINAGE INVENTORY**

The results of this inventory will serve to satisfy the requirements of the Lake County Watershed Development Ordinance (Ordinance).

We have reviewed the existing topography as well as in-house aerial photography and other available data for the site. We propose to perform the following scope of work.

## **FIELD RECONNAISSANCE AND SUBSURFACE INVESTIGATION**

We will perform a field reconnaissance focusing on tile blowouts and outlets to determine likely locations for drain tiles. Following the reconnaissance, we will begin a program of investigative trenching primarily along the project perimeter to determine the presence or absence of drain tiles in accordance with the standards identified in the Ordinance. Drain tile damaged as part of the investigation will be repaired to a condition equal to or better than original. Trenches will be backfilled with the material excavated from the trench. Any drain tile encountered will be staked and logged for location, size, material, condition, percentage of flow, percentage of siltation and depth of cover in accordance with the Ordinance.

We will diligently attempt to locate all on-site drain tiles along the project perimeter and trace mainline drain tiles across the site when possible. However, any drain tile not located during the investigative trenching procedure will necessarily remain unknown.

## **REPORT PREPARATION**

After the investigative fieldwork, we will prepare a summary map exhibit presenting the findings of the subsurface drainage inventory in accordance with the requirements of the Ordinance. The exhibit will depict the location of investigative trenches as well as any encountered tiles and their approximate location, size and extent overlaid on the provided existing contour and property boundary information. The exhibit we provide you will be constructed from field derived GPS data points as well as topographical observation and interpretation. We will provide 5 copies of the final exhibit for your use.

## **SURVEY COORDINATION**

After the investigative fieldwork, the field stakes can be accurately surveyed by your surveyor if this level of accuracy is required for project planning needs. We will provide a summary sketch for your surveyor of the pertinent information to be surveyed.

## **FEES**

We will perform the above referenced subsurface drainage inventory services for \$3,380 lump sum. This proposal does not include any meetings or survey costs. These tasks and any other supplemental work would be in addition to the above or by separate proposal. The drain tile task of this proposal is valid for sixty days.

## **ADDITIONAL NOTES**

Please bear in mind that Illinois law requires us to notify J.U.L.I.E. a minimum of two working days prior to our trenching activities to obtain utility locates. Our slit trenching and tile probing activities require us to potentially traverse all areas of the site. If we are instructed to proceed in areas where crops or other desirable vegetation has been established, it is your responsibility to

arrange for any compensation necessary due to disruptions to this vegetation. Seasonal weather conditions may also cause a delay or postponement of field work due to sloppy conditions or depth of frost.

### TREE INVENTORY SERVICES

We will perform a tree inventory in accordance with the Village of Lake Villa's Municipal Code. All trees measuring 6" in diameter or greater, measured at diameter at breast height (DBH), will be inventoried. The collected data will consist of the tag number, species identification (common and scientific names), size (in DBH), and condition. We will prepare a summary table presenting the findings of the tree inventory that corresponds to the tree tag numbers. The tagged trees will need to be located by your surveyor. We are prepared to complete these tree inventory services on a per tree basis for \$6.00 per tree for an estimated total of \$1,200.

Reimbursable expenses will be in addition to the lump sum fees noted above and include travel, reproductions, shipping/delivery, aerial photographs, phone and other communication charges, consultants and subcontractor fees, equipment and supply costs related to the execution of the project. We estimate reimbursable expenses at \$300 for this project.

This proposal does not include threatened or endangered species surveys, Individual Permit application for Corps wetland impacts, or development of a wetland mitigation plan. These tasks and any other supplemental work would be in addition to the above amounts or by separate proposal. Our Standard Terms and Conditions are attached. If this agreement is acceptable, please sign below and return this proposal to us. Should you have any questions, please contact the project manager, Steve Rauch, at our Volo office.

Steve Rauch

Hey and Associates, Inc.

Civiltech Engineering, Inc.

Maggie Honemann

Attest

Attest

3-17-08

Date

Date

Please return the fully executed proposal in the return envelope provided.

# EXHIBIT A – ATTACHMENT STANDARD TERMS AND CONDITIONS

Hey and Associates, Inc.

## COMPENSATION

### Hourly Billing Rate

#### Principals

Schaefer, President	\$160
Raasch, Senior Vice President	\$140
Mosca, Vice President – Ecological Sciences and Permitting	\$140
Polzin, Vice President - Civil Engineering	\$140
O'Reilly, Vice President - Water Resources Planning	\$120

#### Engineering

Wickenkamp, Vice President	\$125
Senior Water Resources Engineer	\$110
Water Resources Engineer	\$90-100
Engineering Designer	\$90
Engineering Technician	\$45-70

#### Landscape Design

Senior Landscape Architect	\$100
Senior Landscape Designer	\$75

#### Erosion Control

Certified Professional in Erosion and Sediment Control	\$100
Soil Erosion and Sediment Control Specialist	\$60

#### Ecological Services

##### Wetlands and Ecology

Environmental Services Manager	\$95
Water Resources Planner	\$85
Environmental Scientist	\$70-85

##### Native Landscape Restoration

Field Services Manager	\$90
Environmental Scientist	\$70-85
Environmental Intern	\$40

#### Subsurface Drainage Services

Subsurface Drainage Services Manager	\$90
Engineering Technician	\$45-70

#### Design Support

CAD Technician	\$55-65
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#### Administration

Administrator	\$60
Administrative Assistant	\$45

## REIMBURSABLE EXPENSES

Reimbursable expenses shall be reimbursed at cost plus an 8% administrative service charge. Such expenses shall include, but are not necessarily limited to travel, reproduction, shipping/delivery, aerial photographs, phone and other communication charges, consultants and subcontractor fees, equipment and supply costs related to the execution of the project. Fixed reimbursable expense costs are as follows:

Travel	\$ .55/mile
Copies	\$ .10/page
Software/Digital Resource Charge	\$100.00/project
ATV Usage	\$ 40.00/hour
ATV Discing, Herbicide Spraying, Mowing	\$ 45.00/hour
Chain Saw Usage	\$ 20.00/hour
Additional Plotting, B & W	\$ .50/sq. ft.
Additional Plotting, Color	\$ .75/sq. ft.
Additional Plotting, Mylar	\$ 1.00/sq. ft.

## BILLING

Billings shall be on a monthly basis and are payable upon receipt. An additional charge of 1½ percent per month (18% per annum) shall be applied to any balance unpaid more than 30 days beyond receipt of invoice. Client shall pay any attorney's fees, court costs or other expenses incurred collecting delinquent accounts.

Hey and Associates Inc. (Hey), with seven days written notice, reserves the right to suspend or terminate work under this agreement on any account that is past due.

The Client's obligation to pay for the work contracted is in no way dependent upon the Client's ability to obtain financing, zoning, permit approval by governmental or regulatory agencies, or upon the Client's successful completion of the project.

The rates presented herein are effective for the period January 1, 2008 through January 31, 2009 and shall be subject to modification on February 1, 2009.

## LIMITATION OF COSTS

Hey will not be obligated to continue performance or incur costs beyond the estimated costs unless the Client agrees in writing to a revised cost estimate.

## CLIENT'S RESPONSIBILITIES

Client shall arrange for access to and make all provisions for Hey to enter upon private and public property as required for Hey to perform services under this Agreement.

Client shall provide Hey with all existing available information regarding this project as required. Hey shall be entitled to rely upon information and documentation provided by the Client or consultants retained by the Client in relation to this project, however Hey assumes no responsibility or liability for their completeness or accuracy.

## COST OPINIONS

Any cost opinions or project economic evaluations provided by Hey will be on the basis of experience and judgment, but, because Hey has no control over market conditions or bidding procedures, we cannot warrant that bids, construction cost, or project economics will not vary from these opinions.

## STANDARD OF CARE

The services provided by Hey under this Agreement will be performed as reasonably required in accordance with generally accepted standards for services as offered in the proposal for this project at the time and the place where the services are performed.

## INSURANCE

Throughout the duration of the project, Hey will procure and maintain the following insurance:

Liability	Limits of Liability
Workers' Compensation and Employer's Liability	\$ 500,000 each incident
Comprehensive General Liability	\$ 2,000,000
Professional Liability	\$ 1,000,000
Automobile Liability	\$ 1,000,000

Within the limits of this insurance, Hey agrees to hold the Client harmless from and against loss, damage, injury or liability arising directly from the negligent acts or omissions of employees, agents or subcontractors of Hey.

Client will limit any and all liability, claim for damages, losses, cost of defense, or expenses to be levied against Hey on account of any design defect, error, omission, or professional negligence to a sum not to exceed the amount of Hey's fee under this agreement. Should the Client require other types of insurance coverage, limits in excess of the above limits, and/or certificates naming any other(s) than the Client as additional insured parties, Hey's cost of obtaining such coverage, limits, or certificates shall be reimbursable by the Client.

January, 2008

MIDLAND STANDARD ENGINEERING & TESTING, INC.  
558 PLATE DRIVE UNIT 6  
EAST DUNDEE, ILLINOIS 60118  
(847)844-1895 f(847)844-3875

March 19, 2008

Mr. Jon Vana, P.E.  
**Civiltech Engineering, Inc.**  
450 E. Devon Avenue  
Suite 300  
Itasca, Illinois 60143

Re: Proposal for Roadway Soils Survey &  
Pavement Cores  
**Petite Lake Road Realignment**  
Lake Villa, Illinois

Dear Mr. Vana:

We are pleased to have the opportunity to submit the following proposal for performance of a soil survey and roadway coring for the proposed improvements on the referenced project.

Project Description and Scope of Work

The proposed project from a soils exploration standpoint, will require the scope of work outlined:

Realignment of Petite Lake Road between Fairfield Road and IL Route 83. A total length of approximately 5,800 lineal feet. Nineteen (19) soil borings along the proposed alignment and nine (9) and pavement cores along the existing alignment are anticipated.

Construction of approximately 150 lineal feet of retaining wall, less than 10 feet in total height.

Improvements to include the widening at the new intersection with IL Route 83. A total length of approximately 2,700 lineal feet. Nine (9) soil borings and four (4) pavement core along alignment are anticipated.

Method of Performance - Field Work

The typical subgrade soil survey exploration will be accomplished by performing structure borings spaced at approximately 300 foot intervals along the proposed alignment, on alternate sides of the existing alignment in the proposed widening and in the existing pavement, and at other points where significant problem areas are observed.

- a) Soil survey borings will be extended to a depth of seven and one-half (7-1/2) to ten (10) feet with split spoon sampling at 30 inch intervals or more frequently if required to sample all soil strata.

- b) Pavement cores will be made along the existing alignments of Petite Lake Road and IL Route 83 to determine the existing pavement sections.
- c) Structure borings for retaining wall, spaced at 75' to 100' to a depth of fifteen (15) feet.
- d) Laboratory testing will include moisture content determinations, consistency (penetrometer value), determination on cohesive soil samples and classification tests as required to identify major subgrade soil types.

The soil survey borings will be performed in compliance with the current State of Illinois, Geotechnical Manual' January 1999.

#### Method of Performance - Analysis and Report

The boring information will be used to develop soils profile drawings or boring logs as required which will be prepared showing the soil types and test data in accordance with applicable specifications. We understand that reproducible copies of the plan and profile showing existing and proposed grade will be provided by Civiltech for our plotting of the soil profile.

The results of this field exploration and laboratory testing would be used in an analysis and formulation of our recommendations. Major subject areas for our analysis, recommendations and report would include:

1. Identification of soil treatment areas.
2. General earthwork recommendations.
3. Existing pavement sections.
4. Foundation and construction recommendations for retaining wall
5. Soils criteria for input to the pavement design being done by the Design Engineer.

A written report summarizing and presenting the data and recommendations will be prepared by a Professional Engineer, licensed in the State of Illinois.

#### Comments and Timing

We will begin on work after notice to proceed. We plan on mobilizing and doing all the borings concurrently. Final reports and profiles will be coordinated with Civiltech as the base plan and profile drawings and other designs are completed.

#### Fee

We propose to provide this work at the unit rates quoted on the attached Schedule of Services and Fees, Attachments 1.1 and 1.2. These estimated quantities and unit rates are based on information as outlined in this proposal and experience on past projects.

On the basis of the above information, we estimate that these services can be provided for a fee of: **\$ 16,402.00**

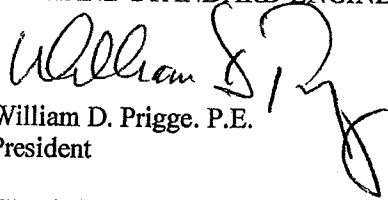


Closure

For this project, Mr. William J. Wyzgala, P.E. as Principal in Charge. He and our staff are acquainted with the local subsurface conditions and have participated in the planning, development and execution of numerous highway soil explorations in this area.

We appreciate the opportunity to provide our services and look forward to working with you on this project. If this proposal is satisfactory, would you please execute the agreement and return one copy, for our files. If you have any questions concerning our proposed scope of work or fees, please contact us.

Very truly yours,  
MIDLAND STANDARD ENGINEERING & TESTING, INC.

  
William D. Prigge, P.E.  
President

WDP/mlw

ACCEPTED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

FIRM: \_\_\_\_\_

Enclosure: Attachments 1.1 and 1.2  
General Conditions

ATTACHMENT 1.1

SCHEDULE OF SERVICES AND FEES

PETITE LAKE ROAD RE-ALIGNMENT

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Cost</u>	<u>Extension</u>
<u>Field Services</u>			
Mobilization of Drill Rigs and Coring equipment, and personnel, Each	1	\$ 500.00	\$ 500.00
Profile Borings, per lineal foot	280	\$ 16.50	\$ 4,620.00
Structure Borings, per lineal foot	45	\$ 16.50	\$ 742.50
Pavement Cores, each	13	\$ 120.00	\$ 1,560.00
Traffic Control, per day	2	\$ 350.00	\$ 700.00
<u>Laboratory Services</u>			
Moisture Content Determinations, ea.	130	\$ 5.50	\$ 715.00
Unconfined Compressive Strength, ea.	80	\$ 4.00	\$ 320.00
Atterberg Limit Determinations, ea.	8	\$ 80.00	\$ 640.00
Grain Size Analysis, including hydrometer, ea.	80	\$ 90.00	\$ 720.00
Organic Content Tests, ea.	2	\$ 75.00	\$ 150.00
Bearing Ratio and Moisture-Density Relationship, each	1	\$ 275.00	\$ 275.00
<u>Engineering Services for Soil Survey BoringS and Pavement Coring Including:</u>			
Layout Coordination			
Utility Clearance and Permits			
Field Engineer/Geologist to Monitor Drilling			
Engineering Supervision of Soil Profiles			
Preparation of Soil Profile Drawings			
Preparation of Core Logs and Boring Logs			
Analysis			
Recommendations for Earthwork			
Report Preparation			
Consultation			
Estimated Cost (@ Unit Rates Listed on Attachment 1.2)			<u>\$ 5,460.00</u>
<b>TOTAL</b>			<b>\$ 16,402.00</b>

ATTACHMENT 1.2

ENGINEERING SERVICES

Our fees for Engineering Services will be based on the actual number of hours required to complete the work, and will be determined on a Unit Rate Basis at these rates for each classification of personnel:

	<u>Est. Quantity</u>	<u>Rate/Hour</u>	<u>Extension</u>
Principal Engineer, per hour	2	\$ 125.00	\$ 250.00
Project Engineer, per hr.	6	\$ 105.00	\$ 630.00
Staff Engineer, per hr.	12	\$ 90.00	\$ 1,080.00
Field Engineer/ Geologist, per hr.	32	\$ 85.00	\$ 2,720.00
Draftsman/Tech., per hr.	12	\$ 65.00	\$ 780.00
		SUBTOTAL:	\$ 5,460.00

State of Illinois  
Department of Transportation  
Bureau of Local Roads and Streets

SPECIAL PROVISION  
FOR  
EMPLOYMENT PRACTICES

Effective: January 1, 1999

In addition to all other labor requirements set forth in this proposal and in the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation, during the performance of this contract, the Contractor for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

**Selection of Labor.** The Contractor shall comply with all Illinois statutes pertaining to the selection of labor.

**Equal Employment Opportunity.** During the performance of this contract, the Contractor agrees as follows:

- (a) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge from military service, and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
- (b) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- (c) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge from military service.

That it will send to each labor organization or representative of workers with which it has or is bound by collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with so such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

**CHECK SHEET #LRS11**

- (e) That it will submit reports as required by the Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
- (f) That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
- (g) That it will include verbatim or by reference the provisions of this clause in every subcontract so that such provisions will be binding upon every such subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by all its subcontractors; and further it will promptly notify the contracting agency and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply therewith. In addition, the Contractor will not utilize any subcontractor declared by the subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

Petite Lake Road Phase II Engineering  
Anticipated Project Schedule  
March 24, 2008  
Lake County Division of Transportation

